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ABSTRACT

The purpose of this study was to investigate the effect of high versus low teacher affect and active versus passive student activities during music listening on high school students' attending behavior. Ninth-, 10th-, 11th-, and 12th-grade general music students (N=26) from two different high schools participated in four short listening lessons. Through the use of a counter-balanced, rotational design each of four treatment combinations was replicated three times. All lessons were videotaped. Data obtained through observation of the videotaped lessons indicated that the combination of low teacher affect and passive student activity was associated with lower on-task behavior than were the three other treatment combinations. There was no significant difference among the other treatment combinations. (Author)

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The Effect of High Versus Low Teacher Affect and Active Versus Passive Student Activity During Music Listening on High School General Music Students' Attention

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This report was based on a paper presented at the Second National Symposium on General Music, held on the campus of the University of Arizona, Tucson, February 16, 1991.

ABSTRACT

The purpose of this study was to investigate the effect of high versus low teacher affect and active versus passive student activities during music listening on high school students' attending behavior. Ninth-, tenth-, eleventh-, and twelfth-grade general music students ($N=26$) from two different high schools participated in four short listening lessons.

Through the use of a counter-balanced, rotational design each of four treatment combinations was replicated three times. All lessons were videotaped. Data obtained through observation of the videotaped lessons indicated that the combination of low teacher affect and passive student activity was associated with lower on-task behavior than were the three other treatment combinations. There was no significant difference among the other treatment combinations.

For many people at all stages of life, listening appears to be a way of enjoying music. One such stage is that of adults. Adults are literally bombarded with listening opportunities. The manner and extent to which they make use of these opportunities may in some measure be motivated by behaviors and attitudes developed during their school years, especially the high school years (Hoffer, 1991). An expanding body of literature suggests that students' school music listening experiences may be critical to their future participation in music listening. Further, Keyes (1977) suggests that our adult society is shaped fundamentally by high school. This study was designed to examine the effect of teacher affective behavior and student participation on students' attention during the listening experience.

Attention is thought by many to be a prerequisite for learning (Forsythe, 1977; Gagne, 1977; Madsen & Geringer, 1983). Not only should attention be engaged for learning to take place, it should be sustained (Madsen, 1990). Activities requiring active participation, such as singing or playing instruments, have been found to be associated with higher levels of attention than were passive activities such as listening to recorded music or to teacher lectures (Madsen & Alley, 1978). Moving may be another activity that elicits on task behavior.

Teacher behaviors in relation to lesson delivery have also been studied in connection with students' classroom attending behavior. High-magnitude, high energy teacher behavior along with high levels of teacher eye contact have been found to elicit the greatest amount of on-task behavior. High-magnitude, high energy teacher behavior along with high levels of teacher eye contact have been found to elicit the greatest amount of on-task behavior in high school choral rehearsals (Yarbrough, 1973; Yarbrough & Price, 1981). The behavior of the teacher has also been found to have a marked effect on student attitude (Abeles, Hoffer and Klotman, 1984). To this end, it may be important that teachers demonstrate positive affect during the listening lesson.

Among other things, Sims (1986) studied the effect of teacher affect and activity-based listening on pre-school children's attending behavior during music listening. Data indicated that high teacher affect was associated with higher levels of group attending behavior and active listening activities elicited higher on-task behavior than did passive listening. The present study was an

attempt to replicate part of Sim's study using high school general music students as subjects. The purpose of the study was to examine the effect of high versus low teacher affect and active versus passive student activity during music listening on high school general music students' on-task behavior.

METHOD

Twenty-six high school general music students from two different high schools served as subjects for the study. The subjects comprised the total membership of the only two of four public high school general music classes found in a university community. Grades nine through twelve were represented in the student population.

Members of each general music class participated in four short instruction sessions occurring on four consecutive days. Students listened to two excerpts daily.

The listening examples, excerpts from the Allegro movement of Haydn's *Symphony No. 14* and Brubeck's *Unsquare Dance*, were chosen on the basis of the availability of age-appropriate active listening activities. Length of the Haydn example was 112 seconds and the Brubeck 100 seconds. Data were obtained by viewing video tapes of 100 seconds for each selection.

Teacher affect was manipulated during the listening sessions. Teacher eye contact, facial expression, and voice intensity were selected to represent affective behavior. High affect included constant eye contact with the class and facial expression/voice intensity indicating pleasure, excitement and/or enthusiasm. Low teacher affect was characterized by the absence of eye contact, and by neutral or bored facial expression and voice characteristics. A second independent variable, active or passive student activity, was combined with affect and incorporated into each listening experience. Active listening comprised the use of student directional hand movement in the air to coincide with the melodic theme while listening to the Brubeck. For passive listening, students were asked "to keep their hands still". The teacher modelled both pieces' activities during each active listening condition and kept hands still during the passive activity.

During all lessons at the two difference schools, the teacher spoke from memory and used a prepared script to ensure consistency of lesson content, format, language and behavior. At no time

after the music began did the teacher engage in verbal comments. Students were videotaped during all instructional sessions. Subsequent viewing and analysis of student on-task/off-task behavior were recorded on time-sampling observation sheets adapted from Madsen & Yarbrough (1980). Students were considered to be on-task if they were looking at the teacher and either had hands still or hands engaged in the movement activity directed by the teacher's instruction.

Teacher affect, and active listening versus passive listening were manipulated with two different example of music (Haydn and Brubeck) on each day. Four different instructional combinations; Low affect and passive listening (LP), Low affect and active listening (LA), high affect and passive listening (HP) and high affect and active listening (HA) were used. Through the use of a rotational, counter balanced design (Campbell & Stanley, 1963), each combination was replicated three times.

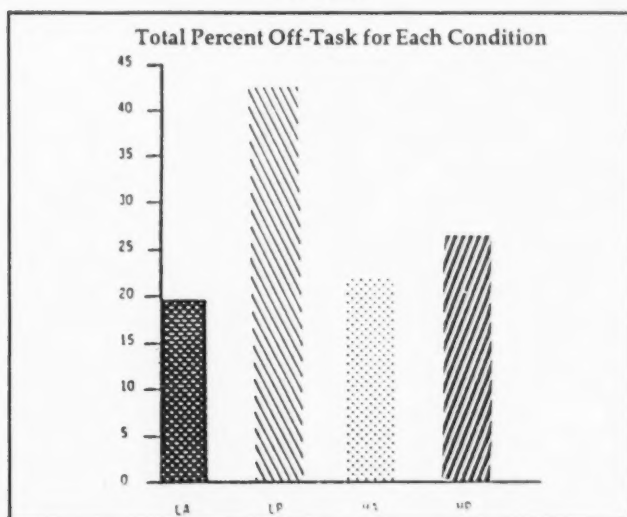
In each school, one enclosed classroom was used for all listening sessions. The teacher stood in the front center of the room facing students who were seated in two short, semi-circle rows. The video camera was placed to the right of the teacher in the front section of the room so that all students appeared in view of the camera for the entire time.

RESULTS

Reliability observers, both those in attendance at the sessions and those who listened to audio tapes were in 100% agreement that the scripts had been followed consistently and that all teacher affective behaviors, were portrayed in accordance with the research design with the exception of teacher voice intensity. Voice intensity from low to high exhibited a moderate rather than large contrast. Two experienced observers viewed all videotapes of student behavior to obtain group on-task data. Observer reliability was calculated to be 97.58% (agreements/disagreements and agreements).

Data on the bar graph represent student off-task percentages for both schools, over the two 2-day periods.

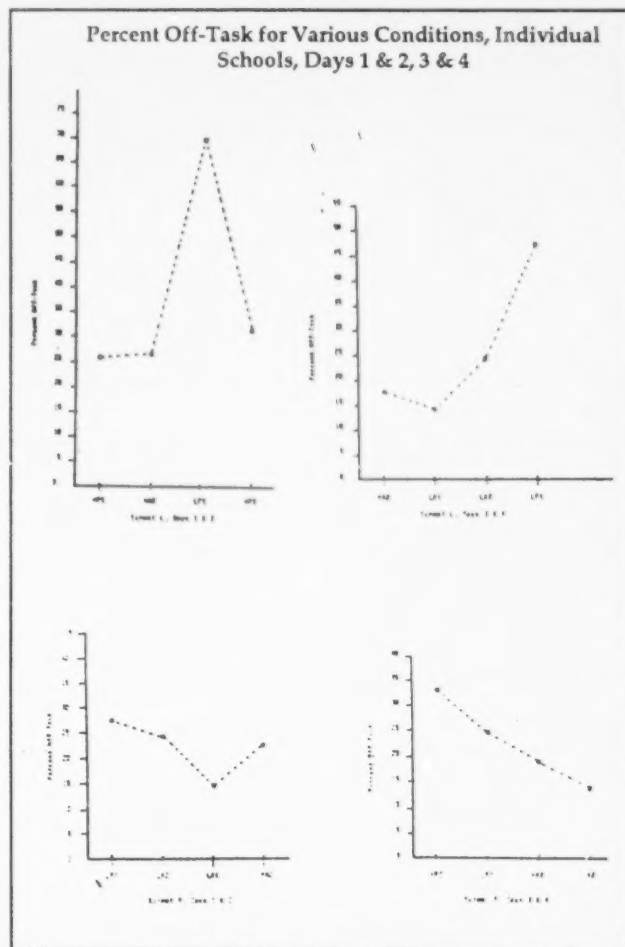
FIGURE 1



Figures 2-4 represent individual sessions for each school. Abbreviations used on the graphs include "H" or "L" for high or low affect, "A" or "P" for active or passive listening activity, and "1" for

the Haydn piece, "2" for the Brubeck. Schools are designated as "L" (Lincoln High) and "R" (Rickards High).

FIGURES 2-4



A comparison of data points on the graphs indicated that low teacher affect coupled with student passive activity was associated with a significantly higher level of student off-task behavior, $F=10.28$, $p < .05$. The use of Newman-Keuls Multiple Comparison Procedure revealed no significant difference among the other three treatment conditions.

TABLE 1

Total Off-Task for Each Condition			
LA	HA	HP	LP
19.34	22.32	25.58	40.80

Note: Underline indicates no significant differences; all other comparisons significant $p < .05$.

When viewing Figure 1 for total percent off-task, it is observed that both LA and HA were associated with *lower* levels of off-task behavior than were LP and HP. In other words, active listening was associated with *lower* levels of off-task behavior, regardless of teacher affect.

DISCUSSION

Systematic observation of student behavior during the videotaped listening activities reveals a generally low level of off-task behavior (approximately 25% or less) across conditions with one exception. That exception was the low passive combination (LP) with a level of slightly more than 40% off-task.

Several points need to be considered as to why passive activity seemed to be associated with a high level of off-task behavior, regardless of its pairing with high or low teacher affect. Results of the present study seem to be consistent with Madsen and Alley's study (1979) in which activities requiring active participation were found to be associated with a lower incidence of off-task behavior and passive activities were found to be associated with higher levels of off-task behavior. Sims (1988) also found that active listening activities elicited lower off-task behavior than passive behavior.

However, data also suggest that high and low teacher affect did not have the same effect on students' attending behavior as active and passive listening. Sims (1988) studied pre-school children's listening behavior and found that high teacher affect was associated with lower levels of off-task behavior. It may be that high teacher affect does not have the same effect for high school students that it has for preschool children. Further, results of the present study are not consistent with results reported by Yarbrough (1973) and Yarbrough and Price (1981) who found that high magnitude teacher behavior in a high school choral situation elicited the greatest amount of on-task behavior (low incidence of off-task behavior), although differences in the population studied might account for this. Perhaps students in a high school general music class respond differently compared to high school choral students.

Further, it should be noted that observers in the present study were in agreement that teacher affective behaviors were in accordance with the research design with the exception of teacher voice intensity. Observers agreed that teacher voice intensity from low to high exhibited a moderate rather than large contrast. It is not known what effect teacher voice intensity may have had on students' attending behavior. Further research is needed in which the teacher exhibits a marked contrast from low to high voice intensity.

While it is not clear what effect teacher affect may have had on students' attending behavior, it does seem clear that passive student behavior elicited a higher level of off-task behavior than did active behavior. It may be assumed that regardless of whether or not the teacher uses high or low affect, the use of an active listening approach should be chosen for success in the listening lesson. Stated another way, if the teacher is going to use low teacher affect, then the teacher would be wise to use active student activities for the listening lesson.

Further research is needed in this area in order to replicate this study. Of course, daily order effects, differences between the two schools studied populations studied, sample size, etc., all could have influenced these results. Perhaps, still other studies should

isolate teacher affect to determine effect on high school general music students attending behavior during the listening lesson. Obviously, this is an important area for continuing research.

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